

APPENDIX C

APPLICATION OF APPLICANTS' CLAIMS TO THE DISCLOSURE OF 08/236,402

Appln. No. 08/236,402

Claims

34. A peptide comprising
a biological function domain which causes the
peptide to localize at a target site, and

34. A peptide comprising

a metal ion-binding domain

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Claims

Page 8, lines 8-10: [A] reagent for preparing a radiolabeled scintigraphic imaging agent for imaging a site within a mammalian body, comprising a specific binding compound that specifically binds to the site in the mammalian body and (The "reagent" can be a peptide since the "specific binding compounds include peptides -- page 11, lines 13-19

a metal ion-binding domain

Page 8, line 11: Tc-99m complexing moiety.

Page 9, line 5: radiolabel complexing moiety.

which comprises the sequence Gly-Gly-Z or Gly-Gly-Gly-Z wherein Z is selected from the group consisting of cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptopropylamine, 3-mercaptopropylamine

Page 8, lines 11-16: of formula R¹-CO-(amino acid)¹-(amino acid)²-Z wherein (amino acid)¹ and (amino acid)² are each independently any primary α- or β-amino acid that does not comprise a thiol group, Z is a thiol-containing moiety that is cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptopropylamine or 3-mercaptopropylamine. (Gly-Gly, which is two α-amino acids not comprising a thiol, is included in "(amino acid)¹-(amino acid)²")

Page 9, line 14: Gly-Gly-Cys

Page 12, line 27: Gly-Arg-Gly-Asp-Gly-Gly-Gly-Gly-Cys.

and D-stereoisomers thereof.

Page 11, line 21: The term amino acid . . . is intended to include all L- and D-, primary α - and β -amino acids, naturally occurring, modified, substituted, altered and otherwise.

35. A peptide according to claim 34 in which the metal ion-binding domain further comprises a radioactive metal ion coupled thereto.

Page 9, lines 25-26: The invention also comprises scintigraphic imaging agents that are complexes of the reagents of the invention with Tc-99m and methods for radiolabeling the reagents.

36. A method for radiolabeling a peptide which comprises the steps of (a) reacting

Page 9, line 25: Tc-99m radiolabeled complexes . . . are formed by reacting....

As in Claim 34
a peptide comprising a biological function domain which causes said peptide to localize at a target site, and a metal ion-binding domain which comprises the sequence Gly-Gly-Z or Gly-Gly-Gly-Z wherein Z is selected from the group consisting of cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptoethylamine, 3-mercaptopropylamine and D-stereoisomers thereof

with Tc-99m ion,

Page 9, line 28: with Tc-99m

and (b) recovering radiolabeled peptide.

37. A method of detecting at least one of the existence and locus of infection or inflammation in the body of a mammalian subject suspected of suffering from infection or inflammation, the method comprising:

(a) administering to said subject

*General method at page 10, lines 10-14: This invention provides methods for using scintigraphic imaging agents that are Tc-99m labeled reagents for imaging sites within a mammalian body by obtaining *in vivo* gamma scintigraphic images. These methods comprise administering an effective diagnostic amount of Tc-99m labeled reagents of the invention and detecting the gamma radiation emitted by the Tc-99m label localized at the site within the mammalian body.*

Specific Examples 2 - 8.

As in Claim 34
a peptide comprising a biological-function domain which causes the peptide to localize at a target site, and a metal ion-binding domain which comprises the sequence Gly-Gly-Gly-Z or Gly-Gly-Gly-Z wherein Z is selected from the group consisting of cysteine, homocysteine, isocysteine, penicillamine, 2-mercaptopethylamine, 3-mercaptopropylamine and D-stereoisomers thereof,

said peptide bearing a Tc-99m ion which has been coupled to said metal ion-binding domain; and

As in Claim 35

(b) detecting the Tc-99m bearing peptide, and thereby determining the existence and locus of infection or inflammation.

As in Claim 36. See also page 10, lines 10-14, quoted above